

JAVA SCRIPT CRYPTO BROWSER MINING | Illegal Or Revolutionary?

fortified (65) ▾ (@fortified) in cryptocurrency (/trending/cryptocurrency) • 6 months ago



Java Script code hidden in adverts served up by ad-networks covertly mines various crypto-currencies directly inside your web browser new research by a team of security experts reveal. The security researchers at *We Live Security* discovered the custom Java Script code being executed in adverts that appear on a number of Russian and the Ukrainian websites.



Cryptocurrency web mining: In union there is profit | We Live Security

(<https://www.welivesecurity.com/2017/09/14/cryptocurrency-web-mining-union-profit/>) - 09/14/2017

In the last months, we stumbled upon some JavaScript files apparently used to mine cryptocurrencies directly within the browser. For a long time now, cybercriminals have taken advantage of cryptocurrency mining in order to make a profit. However, they generally use malware or potentially unwanted applications they install on the victim's machine in order to turn a dishonest penny.

In this particular case, the mining is performed directly within the browser when the user browses to certain websites. Thus, there is no need to infect the victim's machine or to exploit vulnerabilities. All that is needed is a browser with JavaScript activated, which is the default state of most browsers.

The code used in this new malvertising campaign is an updated version of *MineCrunch* which was a script originally developed and released back in 2014.

Kukunin
Member

MEMBER
 2
20 posts
Ukraine

Posted December 14, 2014 (edited)

Hello. My name is Sergiy, and I glad to present my humble service - *MineCrunch*. It is on pretty early stage, something between alpha and beta testing. I'd say "Proof of concept", rather ready-to-use product.

The killer feature is seamless integration in any webpage to allow visitors to generate some cryptocoin to it's owner. It has no extra dependencies, like a Java or Flash. Just pure Javascript + WebSockets (84.5%). While classic CPU mining gives too few profit, distributed mining (hundreds and thousands of visitors) of some new Cryptocoin (cpu-only or so) with nearly native speed (thanks to asm.js) may be very sweet.

Brief Technical Information

- The C Script miner was compiled to Javascript by using Emscripten to achieve the best performance. The performance is about 1.5x slower than native cpuminer application.
- WebGL is not suitable for GPU mining yet, it is too limited for now for this purposes.
- I use patched *NOMP* due it's simplicity. You need only your wallet address to integrate the miner on your website.
- I use WebSockets to implement Stratum protocol between Web Miner and pool.

Currently, miner supports only Script protocol, and there is Litecoin configured within test network on the server side. I want to make sure all components are working well; pool server supports a lot of small clients with micro shares etc.

So, I need the feedback about this project, and some volunteers to test it better. Actually, I don't know what to say more about. Just feel free to ask me anything, I'd glad to get any feedback.

The URL is <http://minecrunch.co/>, while some webminer example you can find here: <http://kukunin.github.io/webminer/>.

Thank you!

Edited December 14, 2014 by Kukunin

Source (<https://web.archive.org/web/20170916151159/https://cryptocurrencytalk.com/topic/24618-minecrunch-web-js-miner-with-integration-feature/>)

Different from traditional GPU crypto mining setups this technique uses the CPU to mine a choice of either Monero, Litecoin or Feathercoin. To

obfuscate processor use and to maximize mining time this modified code has mainly been executed on movie streaming and in-browser gaming websites due to the length of time people spend on these type of sites, and their already high CPU usage.



Whilst looking into this I found a new cryptocurrency called JSE Coin which seems to do pretty much the same thing albeit a little more legally. Rather than injecting the mining code into your browser using adverts the code is offered to website owners and webmasters which they can add to their own websites to mine the JSE Coin for themselves via visitors browsers.

JAVASCRIPT EMBEDDED CRYPTOCURRENCY

"cryptocurrency mined by webmasters built for everyone"

CREATE AN ACCOUNT

LOGIN



Web Browser Mining

Anyone with a website or web browser can now mine cryptocurrency



Webmasters

Replace ads or earn additional revenue from your websites with background cryptocurrency mining



Pre-ICO Opportunity

Launched publicly 32 days ago. Early adopters and investors can secure Pre-ICO JSE tokens.



Live User Platform

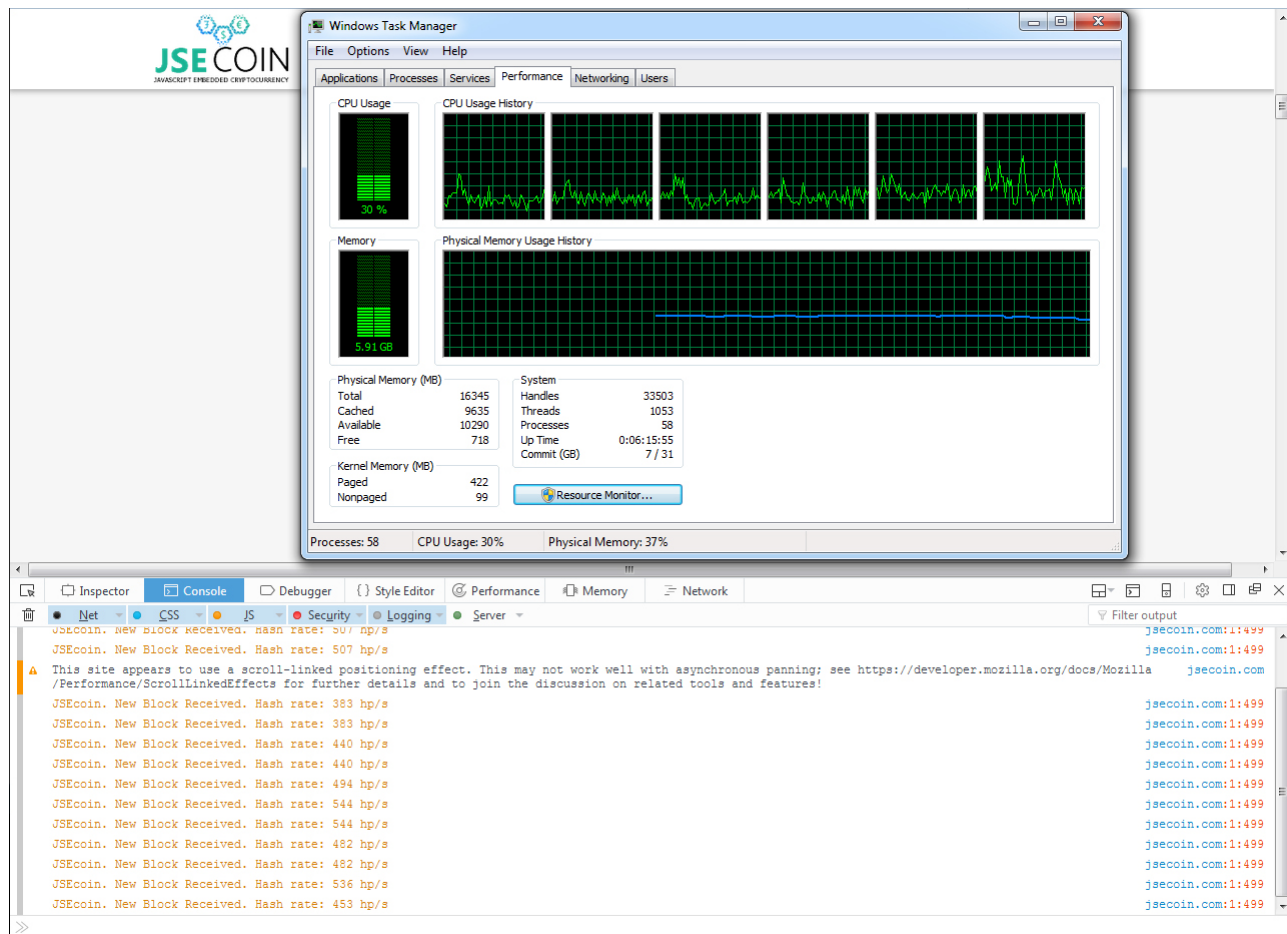
Check out the user interface for publishers, investors and general users.

<https://jsecoin.com/platform/>

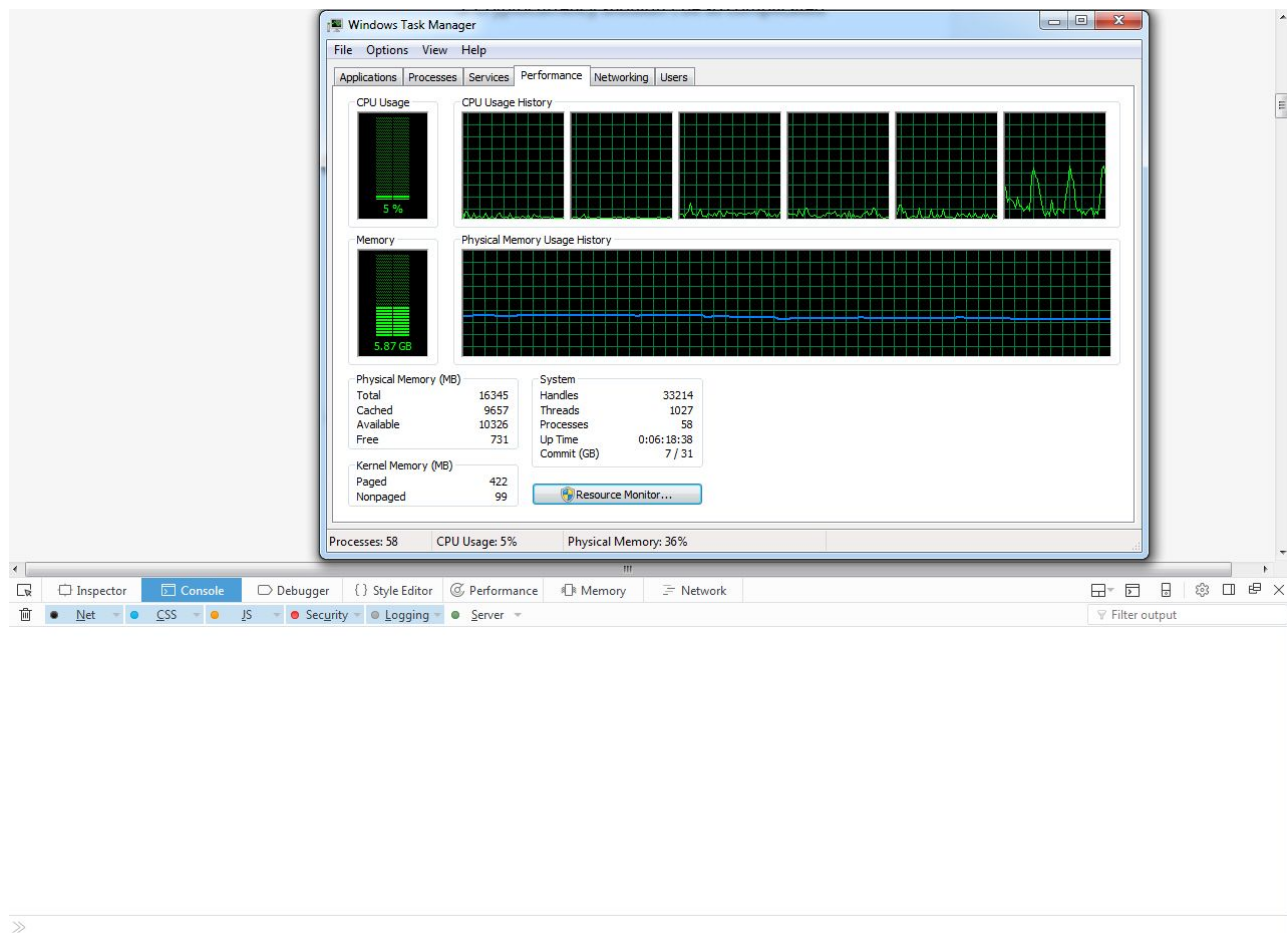
Website visitors carry out the mathematical hashing process in the background while browsing a website using excess CPU power which would be otherwise wasted. An unobtrusive code snippet placed on the website runs in the browser while a visitor is on the page. This provides the hashing functionality required to secure the blockchain. Website visitors are made aware of the mining with a privacy notification and given a chance to opt-out.

I did a bit of analysis on the jsecoin website (<https://jsecoin.com/>) (archived version (<https://archive.is/1Oy8f>) for anyone not wanting to mine). I used the tor browser which has Java Script disabled by default and I found the overall processing power used on this site to be on average about 20-25%.

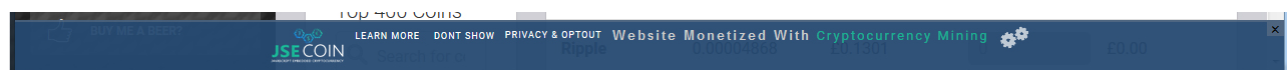
Java Script Enabled



Java Script Disabled



When you first visit a website that has this script embedded a small disclaimer banner appears for about 5 seconds at the bottom of your browser window and then disappears even if you hover your mouse pointer over it. I have tried the JSE Coin website and a few others that also have the code enabled and it seems that this banner only appears once when you first visit. Repeat visits did not make the banner show up again.



Although this is a pretty unique idea and one that could be used instead of adverts to help monetize websites I feel they are going about it in the wrong way. They seem to be only doing the minimum possible to inform people of exactly what is happening. This to me feels like they are trying to hide something from a website visitor instead of being up front from the beginning.

It isn't the first time this has been tried. In 2011 a group called Bitpit tried

the same thing with BitCoin mining but were unsuccessful and shut down 2 months later due to the increased difficulty of the hashes.

Author

1btc0inplz
Member

Activity: 112

Topic: Embedable Javascript Bitcoin miner for your website (Read 139270 times)

Embedable Javascript Bitcoin miner for your website

May 20, 2011, 01:58:01 AM

#1

We are launching ~~bit.it~~ today, a revolutionary **100% Javascript** based bitcoin miner that you can easily **embed right into your own website**. Visitor to your website will run this Javascript seamlessly in the background computing hashes for you, and if a share is found you (the website owner) will receive credit.

We are hoping this will be viewed as an exciting new alternative to banner advertisement that actually has the potential of not being annoying to website visitor and actually generating bitcoins for the website operator.

~~bit.it~~ uses Slush's pool, and for the time being we will pay you out your shares in 0.01 BTC increments once a week. We realize there is a lot to be done, and possibly even some bugs along the way, so we are going to not charge any fees of our own for the first month while we iron out some of the details. Slush will obviously take his fees off the top, but other than that your earnings should be passed straight through to you.

Since we are treating this like a beta, we'd love to hear your feedback, good, bad or ugly. Post up here and let us know what you think.

Javascript is just too slow to mine bitcoins. The recent difficulty increases have made this an impractical idea. Couple that with the fact that WebCL is practically non-existent, and what you are left with is an ornithopter.

It is this reason that we started our own pool (<https://pool.bitp.it>) for people to use their own CPUs and GPUs to mine for bitcoins. It is also this same reason that effective July 9th, 2011 we will no longer be offering Javascript as even an option. All existing users are encouraged to switch to our pool.

We will leave the server side Javascript in-place, so you're existing websites will not attempt to fetch content that doesn't exist. However, the JS on our end will be gutted rendering it non-functional.

Just for recap:

- We will NOT be discontinuing our pool
- All users are encouraged to join our pool
- July 9th will be the last day the Javascript stuff is functional
- July 9th will be the last day we perform payouts

Source (<https://bitcointalk.org/index.php?topic=9042.0>)

Then in 2013 a group of MIT students received a subpoena by the New Jersey Attorney Generals Division of Consumer Affairs office after forming a company called Tidbit which did basically the same thing but without providing a disclaimer or an option to opt-out on the websites that used their code.

Press Release | NJ consumer Affairs (<https://archive.is/Xr8rE>) - 05/26/2015

A New Jersey Division of Consumer Affairs investigation has found that, despite initial assertions by Tidbit's developer, the software was used to gain access to computers owned by persons in New Jersey, without the computer owners' knowledge or consent.

The Division further found that the developer of Tidbit offered and provided the software to web developers without reviewing their privacy policies, and without having any control, compliance, or review mechanism in place. The Division alleges that these actions constituted violations of New Jersey's Computer Related Offenses Act and Consumer Fraud Act.

For a long time people have been wanting a different model other than adverts to monetize their websites. The advertisement model is outdated, intrusive and ugly. This Java Script browser mining model on the whole does seem like a good idea as long as visitors to websites using it fully understand what is going on and have a clear and simple way of opting out if they wish to. Maybe an opt-in option should be available instead of being opt-in by default. At the moment it doesn't seem like it's an alternative to advertising but an addition to monetizing websites as most of the websites I went to that are employing this code are also still running adverts.

Please leave your thoughts below as It'd be great to hear any of your comments and concerns regarding this new way of making money from websites.

FORTIFIED

Steemit (<https://steemit.com/@fortified>) | Gab (<https://gab.ai/fortified>) |
Twitter (<https://twitter.com/XFortified>)

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Re-Steeming -

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🕒 6 months ago by **fortified** (65) ▾ (@fortified) ⬆️ \$40.22 ▾

Reply | 💬 26

87 votes ▾

(/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary) 👁

4,613 | [f](#) [t](#) [in](#) [@](#)

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cryptoeagle (59) ▾ (@cryptoeagle) · 6 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@cryptoeagle/re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170916t215318561z) [⋮]

Very interesting, could this be a new way to legalize monetize websites in the future? Together with micropayments this could fuel the next wave of internet innovation and provide content creators with much needed revenue

⬆️ \$0.24 ▾ | 2 votes ▾ | Reply

fortified (65) ▾ (@fortified) · 6 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@fortified/re-cryptoeagle-re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170916t221032900z) [⋮]


Sure thing. Hopefully it would help content creators to not be tied into adverts. There's certainly a long way to go before it becomes the norm.

⬆️ \$0.13 ▾ | 1 vote ▾ | Reply

midgarosormr (25) ▾ (@midgarosormr) · 5 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@midgarosormr/re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170920t111856705z) [⋮]

I only became aware of this sort of thing within the last few days, but an acquaintance of mine said that this sort of thing has been going on since circa 2014, which kinda shocked me.


In my humble opinion, if you don't know about it (know being the key definition, here), it's invasive, underhanded, 'black hat' and thus on the same level as malware/spyware, and it should be treated as such.

 \$0.05 ▾ | 1 vote ▾ | Reply

fortified (65) ▾ ([/@fortified](#)) · 5 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@fortified/re-midgarosormr-re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170920t203412600z) [-].

I agree. It's been going on since 2011 as far as I can tell.


Knowing about it is definitely the key.

 \$0.00 | 1 vote ▾ | Reply

midgarosormr (25) ▾ ([/@midgarosormr](#)) · 5 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@midgarosormr/re-fortified-re-midgarosormr-re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170921t024438457z) [-].


2011? That's fairly disturbing.

I wonder how many times I've unknowingly helped someone mine bitcoin or another altcoin?

 \$0.00 | Reply


discordiant (60) ▾ ([/@discordiant](#)) · 6 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@discordiant/re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170916t212153634z) [-].

More reasons why I love NoScript for my browsers.

 \$0.04 ▾ | 1 vote ▾ | Reply

fortified (65) ▾ ([/@fortified](#)) · 6 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@fortified/re-discordiant-re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170916t221422800z) [-].

Same here. I much prefer to be able to choose what I run and don't run.

 \$0.00 | Reply

jsecoin (35) ▾ ([/@jsecoin](#)) · 5 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@jsecoin/re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170919t192643262z) [-].

Hi, thanks for your review of JSEcoin. We appreciate all feedback on the site/platform as it lets us know what people like and don't like and what we can do better, although we feel that “only doing the minimum possible “ is a little harsh.

The banner is programmed to reappear once every hour per site. We felt this would minimise the impact on the users experience of the site, especially if they were navigating through numerous different pages. We are keen to hear some other views on this and actually have a thread open in our

forum specifically for any feedback relating to the privacy notice so any input into this is appreciated.
<https://jsecoin.com/forums/topic/privacy-notification/#post-656>
(<https://jsecoin.com/forums/topic/privacy-notification/#post-656>).

We are keen to maintain transparency about the mining taking place and agree that this is key to large scale adoption of the concept.

⬆️ \$0.04 ▾ 3 votes ▾ | Reply

neuromancer (51) ▾ (@neuromancer) · 6 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@neuromancer/re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170917t041413907z) [-].

This may be less visually invasive than using advertising for generating website revenue, but as we all know (or should) many online advertising now uses invasive and invisible methods without consent, such as tracking, monitoring, system fingerprinting, etc.

Transparency and consent are just as necessary for this to be a legitimate rather than insidious (<https://en.wiktionary.org/wiki/insidious>) practice.

Thanks for sharing, resteemed.

⬆️ \$0.00 | Reply

rodneybodker (25) ▾ (@rodneybodker) · 6 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@rodneybodker/re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170916t224727818z) [-].

This is preferable to ads for consumers for sure. I personally am excited for JSEcoin as a developer. I think it could be the future of monetization for independent developers, not so much large scale applications.

⬆️ \$0.00 | Reply

fortified (65) ▾ (@fortified) · 6 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@fortified/re-rodneybodker-re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170917t005218200z) [-].

True. But I hope there is lot more transparency when it comes to letting people know their computer power is being used and I also hope that it could be an alternative to adverts rather than being used along side adverts.

⬆️ \$0.00 | Reply

exxodus (52) ▾ (@exxodus) · 6 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@exxodus/re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170916t235156861z) [-].

This is pretty genius. Thanks for the post!! Voted and resteemed!

⬆️ \$0.00 | Reply

fortified (65) ▾ (/@fortified) · 6 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@fortified/re-exodus-re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170917t005251100z) [-].

I think only time will tell.

Thanks for your support.

⬆️ \$0.00 | Reply

lavater (53) ▾ (/@lavater) · 6 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@lavater/re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170916t205039931z) [-].

Maybe that's why my battery lasts less and less each day ;P

Interesting alternative to the current advertisement model.

I think the Brave Browser + BAT crypto is better though.

⬆️ \$0.00 | Reply

fortified (65) ▾ (/@fortified) · 6 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@fortified/re-lavater-re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170916t221255800z) [-].

Yes there is certainly a power and hardware payoff when this type of stuff is implemented into your browser.

I shall have a look inott Brave Browser and BAT.

Thanks.

⬆️ \$0.00 | Reply

geke (64) ▾ (/@geke) · 5 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@geke/re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170917t173949130z) [-].

fascinating... trying to now figure out how the market will self-regulate in response to this...

⬆️ \$0.00 | Reply


fortified (65) ▾ (/@fortified) · 5 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@fortified/re-geke-re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170918t150838700z) [-].

Yes it could be a game changer if its open and transparent enough.

⬆️ \$0.00 | Reply


teenovision (50) ▾ (/@teenovision) · 5 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@teenovision/re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170918t071347304z) [-].

next evolution in digital space

 \$0.00 | Reply


fortified (65) ▾ ([/@fortified](#)) · 5 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@fortified/re-teenovision-re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170918t115210100z) [-].

Could quite possibly be.

 \$0.00 | Reply


papcio (34) ▾ ([/@papcio](#)) · 5 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@papcio/re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170919t163433700z) [-].

omg

 \$0.00 | Reply

nishikanth (29) ▾ ([/@nishikanth](#)) · 6 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@nishikanth/re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170916t212727995z) [-].


jsecoin.com mining is down from 2 days, on browser.

 \$0.00 | 1 vote ▾ | Reply

fortified (65) ▾ ([/@fortified](#)) · 6 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@fortified/re-nishikanth-re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170916t221105600z) [-].


?

It was working about an hour ago.

 \$0.00 | Reply


croat (48) ▾ ([/@croat](#)) · 6 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@croat/re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170916t205020115z) [-].

Thank you @fortified ([/@fortified](#)). Very informative! 🙏

 \$0.00 | Reply

fortified (65) ▾ ([/@fortified](#)) · 5 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@fortified/re-croat-re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170918t115404200z) [-].

No probs

 \$0.00 | Reply

shaw1 (47) ▾ (/@shaw1) · 5 months ago (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@shaw1/re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20170927t000208451z) [-].

From a legal standpoint, running arbitrary javascript code is not breaking the law. Mining crypto with a website isn't a problem at all.

My own site does this. (Micro earnings crypto site).

The issue is when they hide it.

The earnings are abysmal. There is a reason it hasn't been more widely used. But as an accomplishment, it is pretty darn cool. And hopefully can find a niche to be worthwhile in.

Basically, I think it's all in how you use it. If I add tons of hidden ads to my site, I'm a thief stealing from advertising companies. But if I use them in their proper place, as they are meant to be used, I'm just a smart businessman.

My 2 cents, anyhow.

⬆️ \$0.00 | 1 vote ▾ | Reply

nishadhasan (43) ▾ (/@nishadhasan) · last month (/cryptocurrency/@fortified/java-script-crypto-browser-mining-or-illegal-or-revolutionary#@nishadhasan/re-fortified-java-script-crypto-browser-mining-or-illegal-or-revolutionary-20180118t204102894z) [-].

@fortified (/@fortified) That's why I never prefer to run javascript on my browser after getting knowledge about cryptocurrency mining. Great post BTW.

⬆️ \$0.00 | Reply